XXI.—()n further Collections of Birds from the Efulen District of Camaroon, West Africa. By R. BOWDLER SHARPE, LL.D. With Notes by the Collector, G. L. BATES. —Part IV.\*

(Plate X.)

OUR indefatigable friend Mr. G. L. Bates has sent some further collections from Camaroon, which, as will be seen, contain examples of many interesting species. The series from the Zima Country did not turn out prolific of new species, but that from the River Ja has proved of considerable importance, particularly in the re-discovery of the beautiful *Diaphorophyia ansorgei* of Hartert, of which only the single type specimen from Angola, now in Mr. Rothschild's museum, was known.

As in my preceding papers, I have added a few notes on the species already recorded by me, but the principal portion of the present essay deals with the Passerine birds collected by Mr. Bates near Efulen, on the River Ja, and in the Zima Country. It is noteworthy that the new *Geocichla* (a wonderful discovery of Mr. Bates, to whom I have dedicated the species) was procured by him in the Efulen district, where he has long worked, so that there may yet be some more novelties to be found in that locality.

Mr. Bates has sent interesting notes on some of the species. To these his initials are appended in square brackets.

58. FRANCOLINUS LATHAMI Hartl.; Sharpe, Ibis, 1904, p. 93.

Nos. 1175. J ad.; 1212. 9 juv. River Ja, Dec. 21, 30, 1905.

No. 1206. 9 ad. River Ja, Dec. 29, 1905.

No. 1596. ♀ juv. ,, March 23, 1906.

The nestling has not such distinct white stripes as the adult, the shaft-streaks being sandy buff, while the scapulars

\* Cf. for previous papers: Sharpe, 'Ibis,' 1904, pp. 88, 591; 'Ibis,' 1905, p. 461; Bates, 'Ibis,' 1905, p. 89.

and wing-coverts have a subterminal black bar on the inner web instead of chestnut, the inner secondaries being externally chestnut. The throat and abdomen are white, the fore-neck and chest ashy brown, having spear-shaped white centres with black margins.

The adult female differs from the male chiefly in the colour of the under surface, which is mostly white, the feathers being margined with black and mottled with brown edges. The upper surface is light brown vermiculated with dusky brown, blotched with black spots and more or less concealed sandybuff bars on the scapulars and wing-coverts. The crown, too, in the female is brown instead of ashy.

[Heard in the Zima Country, but not seen.

The "Obem" is found in every part of the country where I have been, but it is as strictly confined to the forest as the "Okwal" is to clearings. I have sometimes caught glimpses of the "Obem," a few together, running on the ground beneath the undergrowth of the forest. A cackling sound, not so loud as the Okwal's but shriller, heard in the forest, has been stated by natives to be made by the Obem. The food found in the stomachs of specimens examined consisted usually of insects. All of my specimens have been caught with snares baited with termites. Two chicks were once heard cheeping near a forest-path, and caught. They were little fluffy things with two parallel stripes on head and back. The mother, in the undergrowth near by, made a clucking or purring noise to call them. The people with me set snares, with the little chicks tied near them, and caught the mother.

The chicks mentioned were found in June. Eggs have been found in May and in March. A female caught on the last day of December had small eggs in the ovary. A young bird, two-thirds grown, was caught about the same time.

Only two eggs were taken in a clutch, and the people say that they never find more. They are of a uniform light brown colour, somewhat pointed in shape, and measure 38 or 39 mm.  $\times$  27 or 28 mm.—G. L. B.]

59. FRANCOLINUS SQUAMATUS (Cass.); Sharpe, Ibis, 1904, p. 93.

1343, 1344. 3 9 ad. River Ja, Jan. 22, 1906.

[Heard, but not seen, in the Zima Country.

The "Okwal" inhabits the borders of cassava patches and the thick growth of bushes where gardens have been abandoned, around every village where I have been, in the Gaboon region, on the Benito, in the Bulu Country, and in the Zima Country. Its whistling cackle, though sometimes heard in the evening or even at noon on a dark day, is oftenest heard early in the morning. This sound is as regular as if it were made by an alarm-clock set for 4.30 or 4.45 o'clock A.M. Many a morning when I have wished to get up early I have been aroused by the Okwal. Though such a near neighbour of man, and living largely upon food planted by him, it keeps itself so well hidden as to be seldom killed. Some natives are able to imitate its call and lure it near enough to shoot it. I have heard also of its being caught on its roost at night, for it is said to sleep soundly.

Okwal's eggs are not infrequently found on the ground, only two or three in a place. They are very like small hens' eggs of a dark tint. A small band of Okwal chicks, onethird grown, was seen in February; a half-grown young one was shot in March. Two old birds shot in January were breeding.--G. L. B.]

60. GUTTERA PLUMIFERA.

Guttera plumifera (Cass.) ; Sharpe, Ibis, 1904, p. 94.

[Called "Nkan" by the Fang and "Mvem" by the Bulu. This species, like the last, is a forest-bird, and is found in every place where I have lived. Some account of it has been given in the 'Ibis' (1904, p. 90).

In a village where I once passed the night two of these birds were brought in by boys returning from a porcupinehunt with dogs. They said that the dogs had caught these two birds in their hiding-places on the ground, while the rest of the flock flew up into the trees. The gizzard of one specimen contained broken pieces of large hard seeds and sand.—G. L. B.] 61. VINAGO CALVA.

Vinago calva (Temm.); Reichenow, Vög. Afrikas, i. p. 394 (1901).

Nos. 953. 9; 954. J. Efulen, July 24, 1905.

[The "Oben" is the most abundant Pigeon in every place where I have been. It was often seen in the Zima Country. It is found wherever there is ripe wild fruit, but is most abundant in old clearings where the "Umbrella-tree" ("asen") grows. I have seen large flocks in the more open inhabited country, where the above-named tree grows abundantly, in the dry season (July); and I used also to see large flocks in the mangroves of the Lower Benito River at the same season. But usually the birds are seen, three or four or half a dozen together, among the leaves of the trees in which they feed; or, on a cool misty morning, perched motionless on a high bare limb. The call which they make at intervals while feeding is very unlike the cooing of a Dove. It consists of several varied syllables, suggesting words of human speech, and any Bulu boy can tell you what the Obeñ says.

Specimens shot in July were breeding. A bird was seen sitting on its nest in September. This Pigeon makes a rude nest in the forks of small trees, often near villages. It lays two white eggs.—G. L. B.]

62. COLUMBA UNICINCTA Cass. ; Sharpe, Ibis, 1904, p. 94.
No. 1320. φ ad. River Ja, Jan. 16, 1906. Eggs forming;
some with shell.

No. 1387. 3 ad. River Ja, Feb. 2, 1906. Testes large.
 No. 1744. ♀ ad. ,, June 11, 1906. Small eggs forming.

63. STREPTOPELIA SEMITORQUATA.

Streptopelia semitorquata (Rüpp.); Sharpe, Ibis, 1904, p. 596.

Nos. 1393, 1394.  $\Im \ \mathfrak{q}$  ad. River Ja, Feb. 6, 1906. Testes in the male very large.

No. 1976. 3 ad. Bitye, River Ja, Oct. 15, 1906.

[This is the "Zum" of the Ja region, and has not been

obtained about Efulen. It usually flies and perches high, making a whistling noise with its wings as it passes. It comes to the ground to feed, however, and lives in part upon what it finds in the gardens. All of my specimens have been obtained with a gun, as this bird avoids snares and perches too high for the bow. It makes a guttural noise like that made by tame Pigeons.

Specimens shot in February were breeding .- G. L. B.]

64. TYMPANISTRIA TYMPANISTRIA.

Tympanistria tympanistria (Temm. & Knip); Sharpe, Ibis, 1904, p. 94.

No. 1390. 9 juv. River Ja, Feb. 3, 1906.

[This little Dove, called, like several other species, "Odu," lives about the gardens, which furnish it with its food, but it keeps pretty well hidden. My specimens have generally been snared.—G. L. B.]

65. CHALCOPELIA AFRA.

Chalcopelia afra (Linn.); Sharpe, Ibis, 1904, p. 94.

[This "Odu" is the commonest species, or at least the one most often seen, coming even into the village street to pick up food. It is shot by the boys with their bows and little palm-stalk arrows.—G. L. B.]

66. CHALCOPELIA BREHMERI.

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Chalcopelia brehmeri (Hartl.); Sharpe, Ibis, 1904, p. 95. Nos. 1169, 1171. ♀ ♂ ad. River Ja, Dec. 20, 1905. No. 1821. ♀ ad. River Ja, July 1, 1906.

No. 2037. 9 ad. Bitye, River Ja, Nov. 2, 1906.

All the females have the wing-spots decidedly tinged with green.

[This is called, in distinction, "Odu-mefan"; "mefan" meaning "the forest." It lives upon seeds and insects picked up from the ground in the forest. Many of my specimens have been obtained by snares baited with termites. Specimens obtained in December were breeding; two obtained in June were not. A female was shot on the nest in the Zima Country by my boys.—G. L. B.] 67. HIMANTOPUS HÆMATOPUS.

Himantornis hæmatopus Hartl.; Sharpe, Ibis, 1904, p. 94. No. 2036. 9 ad. Bitye, River Ja, Nov. 2, 1906.

[This forest-bird has been seldom obtained, and has never been seen alive, by me, but I have heard it, or heard of it, in every locality where I have remained long. A very characteristic sound of the forest at night and early morning, coming always from the direction of a stream of water, is universally attributed by the natives to the "Nkulengu," the name of this bird in Fang and Bulu. The native name is in imitation of this sound, the accent being placed on the last syllable. This call, which is loud and repeated with mechanical regularity, suggests the noise of an old pump worked by a windmill.

Two eggs, brought to me by a native, are believed to be those of this bird, because the perfectly black down on the fully-formed chicks found in them indicated a bird of the Rail kind, and the eggs were too large for any other member of this family that I know. They were said to have been taken from a nest among the upturned roots of an uprooted tree over the bank of a stream. They were of a dirty cream-colour, with spots and blotches of brown and grey; they measured  $43 \times 33$  mm.—G. L. B.]

68. CANIRALLUS BATESI.

Canirallus batesi Sharpe; id. Ibis, 1904, p. 95. No. 1866. 9 juv. River Ja, July 27, 1906.

69, SAROTHRURA REICHENOVI.

Corethrura reichenovi Sharpe, Cat. B. xxiii. p. 121 (1894). Sarothrura reichenovi Sharpe, Hand-1. B. i. p. 103 (1899). No. 983. & ad. Efulen, July 27, 1905. Testes rather small.

70. SAROTHRURA BONAPARTII.

Sarothrura bonapartei Bp.; Reichenow, Vög. Afr. i p. 290 (1900); Sharpe, Ibis, 1904, p. 95.

[This curious little Rail is sometimes caught on the ground by boys, who surround it where it hides under the grass. It SER. IX.--YOL. I. 2 F is said not to fly. It lives in the grassy places about villages, not in the forest. Dr. Weber, one of the missionaries at Ebolewo'o, tells me that these birds are often caught by school-boys in the thick tangle of sweet-potato vines that covers the mission premises. He has often heard their cry, uttered in the daytime, and describes it as a short whistling note, several times repeated.

I have not obtained this bird in the region of the Ja. But once, while resting by the path some twenty or twentyfive miles west of my station near the Ja, I saw one run across from the thicket on one side of the path to that on the other, as quickly and stealthily as a wild rat, which I at first took it to be.—G. L. B.]

71. LIMNOCORAX NIGER.

Limnocorax niger (Gm.); Reichenow, Vög. Afrikas, i. p. 279 (1900).

No. 1831. J ad. River Ja, July 7, 1906. Testes rather large.

72. PODICA CAMERUNENSIS.

Podica camerunensis Sjöst.; Reichenow, Vög. Afrikas, i. p. 300 (1900); Sharpe, Ibis, 1904, p. 96.

No. 1473. 3 juv. River Ja, Feb. 27, 1906.

This specimen has the chin and throat, as well as the middle of the breast and abdomen, white, the sides of the body and under tail-coverts being barred with brown and white; the lower throat and fore-neck are also mottled with brown bars.

No. 1992. Q ad. Bitye, Ja River, Oct. 24, 1905. An egg was found in the oviduet.

This specimen agrees with the foregoing in plumage and markings.

73. ÆGIALITIS HIATICOLA.

*Ægialitis hiaticola* (Linn.); Sharpe, Cat. B. Brit. Mus. xxiv. p. 256 (1896).

Charadrius hiaticula Reichenow, Vög. Afrikas, i. p. 174 (1900).

No. 1975. & hiem. Bitye, River Ja, Oct. 15, 1906.

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74. ÆGIALITIS DUBIA.

*Egialitis dubia* (Scop.); Sharpe, Cat. B. Brit. Mus. xxiv. p. 263 (1896).

Charadrius dubius Reichenow, Vög. Afrikas, i. p. 175 (1900). No. 2034. ∂ juv. Bitye, River Ja, Nov. 1, 1906.

75. TRINGOIDES HYPOLEUCUS.

Tringoides hypoleucus (Linn.); Sharpe, Ibis, 1904, p. 96. No. 1889.  $\Im$  imm. River Ja, Aug. 6, 1906. Ovaries small.

No. 2058. J juv. Bitye, River Ja, Nov. 7, 1906.

76. ŒDICNEMUS SENEGALENSIS.

*Œdicnemus senegalensis* Swains.; Sharpe, Ibis, 1904, p. 596.

[A single specimen was shot on a bare sloping rock several acres in extent, between Ebolewo'o and the Ja. Such great rocks or cliffs are found here and there, forming natural open places in the forest, and are scantily covered with grass and bushes. This bird flew when first seen, but alighted again on the rock, though it might easily have escaped into the surrounding trees. It seemed to shun the forest, and I took it to be a stranger from a desert region. The natives of the neighbouring village, to whom I shewed the bird, were not acquainted with it.—G. L. B.]

77. HAGEDASHIA RARA.

Lampribis rara (Rothsch., Hart., & Kleinschm.); Sharpe, Hand-l. B. i. p. 187 (1899).

Theristicus rarus Reichenow, Vög. Afrikas, i. p. 328 (1900).

No. 1177. 9. River Ja, Dec. 21, 1905.

No. 1310. J., Jan. 15, 1906.

Compared with the adult recorded by me in 1904, which had a very short bill (culmen 3.5), the two birds now sent by Mr. Bates resemble specimens from the Gold Coast, *II. rara* R., H., & Kl., and have the culmen 5.1-5.2 inches. The culmen in the examples from the Gold Coast is 4.6 inches in length.

As the birds now sent by Mr. Bates have the rufous

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feathers of the breast and sides of neck, they must be referred to H. rara until they are demonstrated to be the young of H. olivacea.

78. HAGEDASHIA HAGEDASH.

Theristicus hayedash Reichenow, Vög. Afrikas, i. p. 325 (1900).

Nos. 1193, 1194. Ad. River Ja, Dec. 1905.

No. 1213. 3 juv. River Ja, Dec. 30, 1905.

No. 1334. Ad. River Ja, Jan. 20, 1906.

79. DISSURA MICROSCELIS.

Dissoura microscelis (Gray) ; Reichenow, Vög. Afrikas, i. p. 347 (1901).

No. 1203.  $\bigcirc$  ad. River Ja, Dec. 28, 1905. Eggs forming.

80. ARDEA GOLIATH.

Ardea goliath Cretzschm.; Reichenow, Vög. Afrikas, i. p. 376 (1901).

No. 1275. J? River Ja, Jan. 9, 1906.

No. 1441. 9 ad. ,, Feb. 20, 1906.

81. TIGRORNIS LEUCOLOPHA.

Tigrornis leucolopha (Jard.); Sharpe, Ibis, 1904, p. 98.

No. 1386. J ad. River Ja, Feb. 2, 1906.

No. 1754. J ad. ,, June 12, 1906.

[Of the birds of the Heron family I have little to say. They have generally been only one or two of a species, and those were killed some years ago, when no notes were kept. Of the Tiger-Bittern several specimens have been obtained both at Efulen and the Ja, and this bird seems to be the commonest member of the family. The contents of the stomach of the different individuals were various a spider, grasshoppers, parts of a crab, a lizard, and a goodsized frog. A specimen shot in May had quite large eggs in the ovary.—G. L. B.]

82. BUBULCUS LUCIDUS.

Bubulcus ibis (L. 1758); Reichenow, Vög. Afrikas, i. p. 381 (1901).

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Bubulcus lucidus (Rafin.); Sharpe, Hand-l. B. i. p. 202 (1899).

No. 1689. Ad. River Ja, May 1906. [Skinned by a native in my absence.—G. L. B.]

83. PTERONETTA HARTLAUBI.

Pteronetta hartlaubi (Cass.); Sharpe, Ibis, 1904, p. 98.

[This Wild Duck, called "Alot" or "Aloteke," is known about Efulen, as it is on the Benito and the Como; but I got my first specimens at the Ja, where it is very common. Its call of alarm as it flies up, a rapid "ko-ko-ko," is often heard along the streams, but the dense foliage of the banks prevents its being frequently seen. It is bold in the region of the Ja, and comes to eat the cassava-roots that are put to soak by village women in the streams. By taking advantage of this habit the people sometimes snare it.—G. L. B.]

84. Polyboroides typicus.

 Polyboroides typicus Smith; Sharpe, Ibis, 1904, p. 596.

 No. 1232. φ imm. River Ja, Jan. 2, 1906.

 No. 1630. φ ad. ,, March 29, 1906.

 No. 1791. φ imm. ,, June 23, 1906.

 ova in ovary.

No. 1885. Imm. River Ja, Aug. 3, 1906. [Once seen in the Zima Country.—G. L. B.]

85. Astur castanilius (Bp.); Sharpe, Ibis, 1904, p. 597.

No. 1152. & ad. River Ja, Dec. 16, 1905. Testes of moderate size. A beautiful adult bird in full plumage. Wing 6.1 inches.

 No. 1375. ♀ juv.
 River Ja, Jan. 30, 1906.

 No. 1691. ♂ imm.
 ,,
 May 1906.

 No. \_\_\_\_?
 ♂ ad.
 Bitye, River Ja, Nov. 11, 1906.

86. ASTUR TOUSSENELI.

Astur tousseneli (Verr.); Sharpe, Ibis, 1904, p. 597.

No. 1893.  $\varphi$  ad. River Ja, Aug. 7, 1906. Small eggs in ovary.

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87. UROTRIORCHIS MACRURUS.

Urotriorchis macrurus (Hartl.); Sharpe, Ibis, 1904, p. 597; 1905, p. 464.

No. 976. 9 ad. Efulen, July 27, 1905.

No. 994. 9 ad. ,, Aug. 31, 1905.

No. 1064. J ad. " Aug. 17, 1905. Testes rather large.

No. 1104. 9 juv. Zima Country, Oct. 10, 1905. Ovaries very small.

This is the first young example of *Urotriorchis* that I have seen. It very much resembles the young of *Astur castanilius*, and has black spots on the under surface with black bars on the flanks. The tail has four broad bars of black, and the quills below are barred with silvery white and black.

[Though this species is mainly confined to the forest, as was stated before ('Ibis,'1904, p. 597), I have learned that it comes about villages also. I have seen it in trees near a village; and a specimen (No. 994) was said to have been shot when it came back to pick up a fowl which it had dropped after starting away with it. In connexion with the catching of poultry by this bird a statement is made by the natives which is so remarkable that I venture to give it, even though it is not authenticated. They say that it does not fly upon its prey, but creeps up to it, on the ground ; and, according to one account, it walks among the fowls, pretending to be one of them, and so pounces upon its prey.

Specimens shot in July and August were breeding .- G. L. B.]

88. DRYOTRIORCHIS BATESI.

Dryotriorchis batesi Sharpe, Ibis, 1904, p. 600.

No. 1103. 3 ad. Zima Country, Oct. 10, 1905.

No. 1209. 9 ad. River Ja, Dec. 29, 1905.

No. 1871. 9 ad. ,, July 28, 1906. Small ova in ovary.

No. 1983. 3 ad. Bitye, River Ja, Oct. 18, 1906.

No. 2086. J ad. ,, ,, Nov. 20, 1906.

89. GYPOHIERAX ANGOLENSIS.

Gypohierax angolensis (Gm.); Sharpe, Ibis, 1905, p. 364. [This bird, called "Jun" or "Jul," was never found in the region of Efulen, but was common in that of the Ja. It was also present on the Benito, and I have heard of it in the region of the Campo River. I think that it follows the large rivers. It is said to catch fish; yet my specimens have generally had in their stomachs nothing but the fibrous oily husk of palm-nuts, and these birds are oftener seen near palm-trees than anywhere else. More than one meat-eating creature finds in palm-nuts a substitute for animal food.— G. L. B.]

90. HUHUA POENSIS. Huhua poensis (Fraser); Sharpe, Ibis, 1904, p. 603. No. 1381. 3 ad. River Ja, Feb. 1, 1996. No. 1830. 3 ad. July 6, 1906. ... 91. HUHUA LEUCOSTICTA. Huhua leucosticta (Hartl.); Sharpe, Ibis, 1904, p. 603. No. 1428. 3 ad. River Ja, Feb. 17, 1906. No. 1973. & ad. Kribi, Sept. 27, 1906. Testes of a medium size. 92. Scops letti. Scops letti Büttik.; Sharpe, Ibis, 1904, p. 604. No. 1852. 9 ad. River Ja, July 20, 1906. 93. SYRNIUM NUCHALE. Syrnium nuchale Sharpe ; id. Ibis, 1904, p. 604. No. 735. Ad. Efulen, June 6, 1905. Shot in a thicket in the daytime. No. 1690. Juv. River Ja, May 1906. July 13, 1906. Testes small. No. 1842. 3 ad. ., No. 1972. 3 ad. Twenty-five miles from Kribi, Sept. 26, 1906. Testes small. 94. GLAUCIDIUM SJÖSTEDTI. Glaucidium sjöstedti Reichenow; Sharpe, Ibis, 1904, p. 605. No. 1832. 2 juv. River Ja, July 7, 1906. Ovaries small. No. 1906. 2 ad. River Ja, Aug. 10, 1906. Small ova in ovary.

95. PEOCEPHALUS AUBRYANUS Souancé; Sharpe, Ibis, 1904, p. 605.

No. 1368. 9 ad. River Ja, Jan. 27, 1906. Ovary granular.

[Heard in the Zima Country. The species is known by its shriller scream.—G. L. B.]

96. PSITTACUS ERITHACUS.

Psittacus erithacus L.; Reichenow, Vög. Afrikas, ii. p. 2 (1902).

[The common Grey Parrot is fond of maize, and the flocks gather about the patches of corn when it is ripe. It is the work of the girls of the village to scare the Parrots away. The girls keep up a noise all day long, with their voices, and by drumming on logs, while the Parrots hang around persistently, watching for a chance to get a bite, yet afraid of the noise. When they get the opportunity they gorge themselves. A Grey Parrot has been caught alive from sheer inability to fly readily, owing to the weight of grain in its crop. Often seen in the Zima Country.— G. L. B.]

97. Agapornis pullaria.

Agapornis pullaria (L.); Sharpe, Ibis, 1904, p. 605.

No. 1009. 9 ad. Efulen, Aug. 7, 1905.

No. 1167. 9 imm. River Ja, Dec. 19, 1905. Ovaries small.

No. 1844. 9 ad. River Ja, July 15, 1906.

No. 2011. J ad. Bitye, River Ja, Oct. 28, 1906.

No. 2055. J ad. ,, ,, Nov. 5, 1906.

[The specimen of Agapornis pullaria, No. 1167, was caught by the boys in their hands, in the tall grass, owing to inability to fly, due to its gorging itself. Its crop was distended with the kernels of grass-seeds to half the size of the remainder of the body, after skinning.—G. L. B.]

98. EURYSTOMUS AFER.

Eurystomus afer (Lath.); Reichenow, Vög. Afrikas, ii. p. 228 (1902).

No. 1476.  $\updownarrow$  ad. River Ja, Feb. 27, 1906. Eggs forming.

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No. 2106. ♂ ad. Bitye, River Ja, Nov. 28, 1906. Testes small.

[Heard in the Zima Country.-G. L. B.]

99. ALCEDO GUENTHERI Sharpe; id. Ibis, 1904, p. 607.

No. 1071. J ad. Efulen, Aug. 20, 1905.

No. 1571. 9 ad. River Ja, March 19, 1906. Eggs beginning to form.

Nos. 1931, 1935. ♂ ♀ ad. 25 miles from Kribi, Sept. 12-13, 1906. Small eggs in the ovary of the female.

100. ISPIDINA LEUCOGASTER (Fras.); Sharpe, Ibis, 1904, p. 607.

Nos. 823, 827. S ad. Efulen, July 1, 1905. Nos. 1020, 1051. Q ad. Efulen, Aug. 9, 18, 1905. No. 1619. S ad. River Ja, March 28, 1906. No. 1938. Q ad. 25 miles from Kribi, Sept. 15, 1906. No. 2021. S ad. Bitye, River Ja, Oct. 29, 1906.

101. Myloceyx ruficeps.

Myioceyx ruficeps (Hartl.); Sharpe, Ibis, 1904, p. 607.

No. 734. 3 ad. Efulen, June 6, 1905. Insects in stomach.

No. 967. ♀ ad. Efulen, July 26, 1905.
No. 1662. ♀ ad. River Ja, April 10, 1906.
No. 1936. ♂ ad. 25 miles from Kribi, Sept. 15, 1906.
No. 2046. ♀ ad. Bitye, River Ja, Nov. 5, 1906.

102. HALCYON BADIUS Verr.; Sharpe, Ibis, 1904, p. 608.
No. 780. ♂ ad. Efulen, June 14, 1905.
Nos. 956. ♂; 916, 990. ♀ ad. Efulen, July 14–28, 1905.
No. 1341. ♂? River Ja, Jan. 22, 1906.
Nos. 1493, 1499. ♂ ad. River Ja, March 3, 5, 1906.

103. HALCYON MALIMBICUS (Shaw); Sharpe, Ibis, 1904, p. 608.

No. 1021. ♀ ad. Efulen, Aug. 9, 1905. No. 1627. ♀ ad. River Ja, March 29, 1906. No. 1961. ♀ ad. 25 miles from Kribi, Sept. 21, 1906. 104. LOPHOCEROS CAMURUS.

Lophoceros camurus (Cass.); Sharpe, Ibis, 1904, p. 609.

No. 1498. 3 ad. River Ja, March 5, 1906. Testes rather small.

[Heard in the Zima Country.-G. L. B.]

105. Horizocerus hartlaubi.

Horizocerus hartlaubi (Gould); Sharpe, Ibis, 1904, p. 609.

No. 1967. 3 ad. 25 miles from Kribi, Sept. 22, 1906. Testes large.

[One was shot in the Zima Country.-G. L. B.]

106. Bycanistes albo-tibialis.

Bycanistes albotibialis (Cab. & Reichen.); Reichenow, Vög. Afrikas, ii. p. 242 (1902).

No. 1764. J ad. River Ja, June 14, 1906. Testes large.

[Often seen in the Zima Country.-G. L. B.]

107. Ortholophus albocristatus.

Ortholophus albocristatus (Cass.); Sharpe, Ibis, 1904, p. 609.

No. 1431. J ad. River Ja, Feb. 18, 1906. Testes rather small.

No. 1579. 3 ad. River Ja, March 23, 1906. Testes rather small.

No. 1966. J ad. 25 miles from Kribi, Sept. 22, 1906.

No. 1987. 3 juv. Bitye, River Ja, Oct. 21, 1906.

I cannot follow Dr. Finsch in his reasoning concerning this species, which he has called O. cassini. In his letter to the 'Ibis' (1905, p. 286) he resumes his arguments, and maintains that Cassin's figure in the 'Journal'\* of the Philadelphia Academy represents the Liberian White-crested Hornbill, while he says that the series of Liberian Ortholophi in the Leyden Museum agree with Cassin's figure. We have only one Liberian specimen in the British Museum, a duplicate from the Leyden Museum, and this bird does not agree with Cassin's plate, as it has not any white tips to the

\* I spoke of the 'Transactions' by mistake for 'Journal.'

wing-coverts or inner secondaries, but only a few white spots on the outer web of some of the primaries.

I again affirm that the bird which agrees best with Cassin's plate and shews white spots on the wing-coverts and secondaries is the species from Gaboon and Camaroon. I suggest that a mistake may have been made in the locality of Cassin's original specimen.

108. Scoptelus brunneiceps.

Scoptelus brunneiceps Sharpe; id. Ibis, 1904, p. 610, pl. xii. No. 1450. S ad. River Ja, Feb. 22, 1906. Testes rather small.

No. 2045. J ad. Bitye, River Ja, Nov. 5, 1906.

109. MELITTOPHAGUS AUSTRALIS.

Melittophagus australis Reichenow; Sharpe, Ibis, 1904, p. 611.

No. 1379. 9 ad. River Ja, Jan. 31, 1906. Eggs forming.

No. 1442. J ad. River Ja, Feb. 20, 1906. Testes rather large.

Nos. 1769, 1770. & Q ad. River Ja, June 16, 1906.

No. 1896. J ad. River Ja, Aug. 8, 1906.

No. 1908. 9 ad. ,, Aug. 11, 1906.

[This bird is seen now and then sitting on an exposed twig, from which it makes sallies after insects, returning to the same perch. I have generally observed it thus near midday, when most other birds are hidden in the cool shade. Sometimes there are two of these Bee-eaters, on perches not far apart. Those seen have generally been silent, but one observed near Efulen in July uttered a series of sharp "cheeps" after each circuit-flight, beginning to "cheep" while still on the wing, and keeping it up for a minute or so on its perch, working its tail up and down as it did so.

Specimens in January, February, and May were breeding. In April, near the Ja, a bird of this species was seen to fly out of a hole in a bank near the path. The hole ran into the bank, near the surface above, for two or three feet, in loose, sandy soil. Two white eggs were found lying on clean, fresh earth, at the end of the hole; and nothing else was discovered, except a few dry hard bits of insects and a grain of maize. There was no evidence of the hole having been used before; there was no excrement in it. The eggs were very thin-shelled, and both got broken before they could be measured. They were short and blunt at both ends, and larger than the eggs of *Pyenonotus yabonensis*, which is a larger bird.—G. L. B.]

110. Merops batesiana.

 Merops batesiana Sharpe; id. Ibis, 1904, p. 611.

 No. 1475. ♀ ad. River Ja, Feb. 27, 1906.

 No. 1612. ♂ ad. ,, March 26, 1906.

 No. 1828. Ad. ,, July 4, 1906.

 Nos. 2075, 2076. ♂ ♀. Bitye, River Ja, Nov. 18, 1906.

 The female resembles the male in colour.

111. Cosmetornis vexillarius.

Cosmetornis vexillarius (Gould); Hartert, Cat. B. Brit. Mus. xvi. p. 595 (1892).

Macrodipteryx vexillarius Reichenow, Vög. Afrikas, ii. p. 371 (1902).

No. 1497. 3 ad. River Ja, March 5, 1906.

Nos. 1532, 1550. Imm. River Ja, March 10–15, 1906. Testes small.

The difference in the pattern of the markings on the under surface of the quills is most interesting, as the rufous notches or bars on the inner web are very variable in shape, the youngest birds having ovate spots, with the brown bars of varying shape, so that it would appear that the pattern changes without any direct moult of the quill.

112. CAPRIMULGUS BATESI.

Caprimulgus batesi Sharpe, Bull. B. O. C. xix. p. 18 (Nov. 1906).

No. 1267. ♂ ad. River Ja, Jan. 8, 1906. Testes large.
 Nos. 1610, 1632. ♀ ad. River Ja, March 26-29, 1906.
 Eggs in process of formation.

 Nos. 1698, 1700.
 ♀ ad.
 River Ja, May 29, 1906.

 No. 1870.
 ♀ ad.
 River Ja, July 28, 1906.

 No. 1879.
 ♂ ad.
 ,, Aug. 1, 1906.

This large Goatsucker seems to me to be new to science. It is apparently allied to *C. nigriscapularis* of Reichenow, but is very much larger, measuring  $7\cdot 2-7\cdot 5$  inches in the wing of the male,  $7\cdot 3-7\cdot 6$  in that of the female, whereas in *C. nigriscapularis* the wing is given as  $5\cdot 15$ . The male has a very small white spot on the inner web of the first primary, a larger and more rounded one on the inner web of the second, the third and fourth being banded across both webs with white. The male likewise has the two outer tail-feathers broadly tipped with white, fringed at the extreme ends with dusky brown. The female has no white on the quills or tail-feathers, but one specimen shews a slight indication of a wing-bar in the shape of rufous notches in the first four primaries. The females are slightly more rufescent in tone than the males.

113. CAPRIMULGUS EUROPÆUS.

Caprimulgus europæus L.; Hartert, Cat. B. xvi. p. 526 (1892); Reichenow, Vög. Afrikas, ii. p. 352 (1902).

No. 1500. 3 ad. River Ja, March 5, 1906.

This appears to be the first record of our Common Nightjar in West Africa.

114. CAPRIMULGUS SHARPII.

Caprimulgus sharpei Alexander, Bull. B. O. C. xii. p. 29 (1901).

Caprimulgus trimaculatus sharpei Reichenow, Vög. Afrikas, ii. p. 358 (1902).

No. 1920. & ad. E. of Ebolewo'o, Aug. 19, 1906. Testes small.

This specimen has been compared with the type, kindly lent to me by my friend Alexander.

115. Cypselus batesi.

Cypselus batesi Sharpe, Bull. B. O. C. xiv. p. 63 (1904).

Apus batesi Reichenow, Vög. Afrikas, iii. p. 827 (1905).

[Swifts may be seen, almost any clear day, rapidly

coursing high in the air. Having no white on the hinder part of the body, these cannot be *Chætura stictilæma*, which is also sometimes seen. The only black Swift that I know here is *C. batesi*, of which the type specimen was obtained as stated before ('Ibis,' 1905, p. 91). It has not been secured since; yet these Swifts are abundant, and I wonder where they roost and nest, and why no one, even of the natives, ever finds them.

One afternoon, immediately after a hard rain, a lot of Swifts were seen coursing near the earth. The rain had hardly ceased, and there had not been time for them to be attracted by insects rising from the ground after the rain; so I think that they must have followed the insects which they had been pursuing in the upper air, as these were borne downward by the rain. The Swifts disappeared soon, and were seen going in the direction in which the rain-clouds had gone.—G. L. B.]

116. Colius nigriscapalis.

Colius nigriscapalis Reichenow; Sharpe, Ibis, 1904, p. 612.

No. 1148. 3 ad. River Ja, Dec. 15, 1905.

Nos. 1257, 1264. 9 ad. River Ja, Jan. 7, 1906.

No. 1290. 9 ad. River Ja, Jan. 11, 1906. Eggs beginning to form.

Nos. 2068, 2092. ♂♀ ad. Bitye, River Ja, Nov. 14, 24, 1906.

[These birds are unknown in the strictly forest-region about Efulen; they are common in the extensive old clearings of the Ja. They fly about in flocks of half a dozen or a dozen, feeding on the fruits of wild vines and bushes, and spending much of their time perched motionless. Their favourite place is a small tree that is bare of leaves. There one or more of them may be seen clinging to a perpendicular twig, against which the long tail is braced, something in the manner of a Woodpecker; but they cannot cling to a large tree-trunk in this way. Their tails soon become much worn, and it is rare to get a specimen with a perfect tail. They utter a peculiar little plaintive "cheep."-G. L. B.]

117. HAPALODERMA NARINA.

Hapaloderma narina Sharpe, Ibis, 1904, p. 613.

Nos. 1288-1367. J ad. River Ja, Jan. 11-26, 1906. Testes rather large.

No. 1388. J ad. River Ja. Feb. 2, 1906. Testes medium size.

[Heard in the Zima Country .- G. L. B.]

118. TURACUS ZENKERI.

Turacus zenkeri Reichenow; id. Vög. Afrikas, ii. p. 56 (1902).

Nos. 1615, 1620. J ad. River Ja, March 27, 1906. Ovaries granular.

No. 1683. d ad. River Ja, April 18, 1906. No. 1856.  $\bigcirc$  ad. ,, July 24, 1906. No. 1914.  $\bigcirc$  ad. ,, Aug. 13, 1906. [Heard in the Zima Country.—G. L. B.]

119. TURACUS MERIANI.

Turacus meriani (Rüpp.); Sharpe, Ibis, 1904, p. 613.

Nos. 1010, 1023, 1102, 1110. ♂♀. Efulen, Aug. 5, 7, 9, 1905.

120. Coccystes cafer.

Coccystes cafer (Licht.); Sharpe, Ibis, 1904, p. 613. No. 1455. & ad. River Ja, Feb. 23, 1906.

121. PACHYCOCCYX VALIDUS.

Pachycoccyx validus (Reichenow); Sharpe, Hand-l. B. ii. p. 156 (1900); Reichenow, Vög. Afrikas, ii. p. 83 (1902); Dubois, Ann. Mus. Congo, i. pl. i. fig. 2 (1905).

No. 1835. J juv. River Ja, July 8, 1906.

122. CUCULUS SOLITARIUS.

Cuculus solitarius Steph.; Sharpe, Ibis, 1904, p. 613.

[The notes uttered by this bird here are undoubtedly the same as those to which the words "Piet-mijn-vrow" are attributed in South Africa, the Bulu version of them being "Za-so-foé," meaning "Who brings the news?" These words often serve as the name of the bird, though many people know it as the "Little Hawk." The call of "Za-so-foé" may be heard at almost any hour of the day, especially if it be cloudy; but it is most often noticed at evening and at night. When lying awake, I have heard it at all hours.

The bird has another call in much the same tone, but rising instead of descending in pitch. This same bird has at last been identified as the source of still another peculiar bird-call that long puzzled me—a startling loud and rapidly-repeated cry sounding like "*Hurry*! HURRY! HURRY!" first increasing in loudness and then dying away. This bird, like its kindred celebrated in poetry, is hard to locate by its cry. It was heard in the Zima Country.—G. L. B.]

123. Cuculus gabonensis.

Cuculus gabonensis Lafr.; Sharpe, Hand-l. B. ii. p. 159 (1900); Reichenow, Vög. Afrikas, ii. p. 88 (1902).

No. 951. J ad. Efulen, July 25, 1905.

No. 1139. J juv. 150 miles from the coast, Nov. 6, 1905.

Nos. 1446, 1451. J ad. River Ja, Feb. 21, 1906.

No. 1481. 3 ad. River Ja, March 1, 1906.

No. 1887. 3 ad. ,, Aug. 4, 1906.

No. 1901. 9 imm. " Aug. 9, 1906.

No. 2108. 9 imm. Bitye, River Ja, Nov. 30, 1906.

The young bird (No. 1139) has whitish edgings to the feathers of the upper surface and of the throat, the latter being black with a few chestnut feathers. The under tail-coverts have a few black cross-bars; but these are not so plentiful as in *C. jucksoni*, which also has the under wing-coverts narrowly but plentifully barred with black, as well as the axillaries.

124. Cercococcyx mechowi.

Cercococcyx mechowi Cab.; Reichenow, Vög. Afrikas, ii. p. 84 (1902).

Nos. 1382, 1385. J 2 imm. River Ja, Feb. 1, 1906.

Nos. 1592, 1634. J Q imm. River Ja, March 21, 30, 1906.

None of these examples seem to be quite adult. The older birds (1385, 1634) have deep sandy-buff under tail-coverts, the others being creamy-buff.

125. METALLOCOCCYX SMARAGDINEUS.

Metallococcyx smaragdineus (Sw.); Sharpe, Ibis, 1904, p. 614.

No. 1323. J ad. River Ja, Jan. 16, 1906.

No. 1674. 3 ad. " April 13, 1906.

[This is another bird the call of which, put in words, constitutes its Bulu name, which is "Ta-ôjôé." It is supposed to say "Ta! ta ôjoé," "Look! a Pigmy Autelope!" This call is often heard at mid-day when the sun is shining, and the bird is perched on some bare limb on the top of a tall tree. It is a very agreeable sound. A specimen was obtained in the Zima Country.—G. L. B.]

126. Chrysococcyx klaasi.

Chrysococcyx klaasi (Steph.) ; Sharpe, Ibis, 1904, p. 614.

No. 1363.  $\varphi$  ad. River Ja, Jan. 25, 1906. Eggs beginning to form.

No. 1564. 3 ad. River Ja, March 17, 1906.

[The species of *Chrysococcyx* have clear whistling calls, very characteristic and unmistakable when learned. *C. klaasi* may be supposed to spell "p-o-p"—that is, to utter the names of those letters in a clear, high, though not loud tone.—G. L. B.]

127. Chrysococcyx flavigularis.

*Chrysococcyx flavigularis* Shelley, P. Z. S. 1879, p. 679, pl. 50; id. Cat. B. Birds Brit. Mus. xix. p. 282 (1891).

No. 1335. S ad. River Ja, Jan. 20, 1906.

This specimen agrees with Captain Shelley's description and figure. The original type in the British Museum is said to have come from the Gold Coast.

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128. CHRYSOCOCCYX CUPREUS.

Chrysococcyx cupreus (Bodd.); Sharpe, Ibis, 1904, p. 615.

No. 1512. J pull. River Ja, March 7, 1906.

No. 1651. 3 ad. ,, April 3, 1906.

[This bird is supposed to utter its own name, "Kumajaja," though it really pipes an indefinite number of syllables, and runs together those after the first two or three so rapidly that one cannot stop to say the rather difficult syllable "ja" in that way.

The various calls of birds of the Cuckoo family constitute a large part of the most characteristic bird-sounds of this country. I have heard several of them imitated in the varied song of Turdus saturatus.

C. cupreus has been found with large breeding-organs in June, July, and December. As stated before ('Ibis,' 1905, p. 96), I once saw a young Chrysococcyx seated on a branch, being fed by a female Tchitrea viridis.

All the members of the Cuckoo family named thus far live almost exclusively on caterpillars. This species was heard in the Zima Country .--- G. L. B.]

129. CENTROPUS ANSELLI.

Centropus anselli Sharpe, Ibis, 1905, p. 466.

No. 1231. 3 ad. River Ja, Jan. 2, 1906. Testes moderately developed.

No. 1515. 3 ad. [moulting]. River Ja, March 7, 1906. Testes rather large.

No. 1580. 9 imm. River Ja, March 21, 1906. Eggs forming.

No. 1709. 9 juv. River Ja, June 1, 1906. No. 2062. 9 imm. Bitye, River Ja, Nov. 12, 1906.

This is more of a forest-species than its other congeners; I have found it only at the Ja, but there it is not rare. That it sometimes kills and eats smaller birds is proved by a curious incident. My first specimen, No. 599, which was caught in a snare on the ground, had in its stomach the neck, the skull-bones, an eye, and a bit of feathered skin of a Cossypha cyanocampter. Several snares had been placed near together at that place; and in another, a foot or two away, was found the dead body of a Cossypha with the head torn off, though the bill was left hanging. As these snares eatch the birds by their feet and seldom kill them, the Centropus probably found the little bird alive, and devoured it, when it got caught itself.—G. L. B.]

130. CENTROPUS MONACHUS.

Centropus monachus Rüpp.; Sharpe, Ibis, 1904, p. 615.

No. 943. & ad. Efulen, July 21, 1905.

No. 1050. J ad. ,, Aug. 15, 1905.

No. 1374. 3 ad. River Ja, Jan. 30, 1906. Testes rather small.

No. 1519. 3 ad. River Ja, March 8, 1906. Testes rather large.

[This is the commonest large bird of the old clearings in the neighbourhood of the villages wherever I have been. Its doleful call is one of the first bird-sounds noticed by newcomers to West Africa. The natives have strange superstitious notions about it. One thing that the Bulu people say may have a foundation in fact, namely, that the "Du'u," as they call this bird, kills snakes and carries the heads to its nest. I have seen a nest of this bird, but it, at least, had no parts of dead snakes about it. It was in a small tree, from which hung a thick tangle of vines, not far from the village; it consisted of a mass of dry leaves loosely piled in a fork of the branches. There were three white eggs in it, blunt at the ends, measuring  $37 \times 28$  mm.

The food of the "Du'u" is insects, mainly grasshoppers, as well as larger prey. One that was killed had in its stomach the remains of a wild mouse. I caught another in the act of tearing open a retort-shaped nest of *Heterhyphantes nigricollis* hanging in a bush. It flew to a limb near by, where it sat wiping its bill. One nestling was found in the nest when I went to look : the bird had probably eaten the other.—G. L. B.] 131. CEUTHMOCHARES AËREUS.

Ceuthmochares aereus (V.); Sharpe, Ibis, 1904, p. 615.

No. 1313. J ad. River Ja, Jan. 15, 1906.

No. 1846. 9 ad. ,, July 17, 1906.

[This is a bird of thickets, whether in the forest or in the smaller growth of old clearings. I have never yet seen it flying in the open. It threads its way through tangled vines and branches with the agility of a squirrel. Its call is very unlike that of any other Cuckoo, being like that made by some tiny Sunbird; it begins with some scattered notes in a fine high-pitched voice, then repeats these more and more rapidly till they run together in a continuous sound. Often heard in the Zima Country.—G. L. B.]

132. Indicator stictithorax.

Indicator stictithorax Reichenow; Sharpe, Haud-l. B. ii. p. 176 (1900); Reichenow, Vög. Afrikas, ii. p. 110 (1903).

Nos. 1937, 1941, 1944. 25 miles from Kribi, Sept. 15–19, 1906.

133. INDICATOR MACULATUS.

Indicator maculatus Gray; Shelley, Cat. B. Brit. Mus. xix. p. 9 (1891); Reichenow, Vög. Afrikas, ii. p. 109 (1903). No. 873. 3 ad. Efulen, July 11, 1905.

This specimen agrees with the type of *I. maculatus* in the British Museum, allowing for the faded condition of the latter. The other birds which I believe to be *I. stictithorax* have the rounded spots confined to the breast, and the rest of the under surface streaked, whereas the whole of the under surface is spotted in *I. maculatus*, including the under tail-coverts.

134. Indicator conirostris.

Indicator conirostris (Cass.); Sharpe, Ibis, 1904, p. 616. No. 2124. J ad. Bitye, River Ja, Dec. 12, 1905.

135. INDICATOR EXILIS.

Indicator exilis (Cass.); Sharpe, Ibis, 1904, p. 615. Nos. 867, 874. Z ad. Efulen, July 10, 1906. Nos. 910, 911. Z 2 ad. ,, July 14, 1905. No. 1594.  $\mathcal{J}$  juv. River Ja, March 22, 1906. This appears to be the young of *I. exilis*, but has a very small reddish-brown bill. The wings are like the back, olive-green, with obscure dusky centres to the wing-coverts, but there is a golden-olive tint everywhere. The under surface of the body is olive greenish, greyer on the throat; the feet are pale reddish brown.

136. LYBIUS BIDENTATUS.

Lybius bidentatus (Shaw); Sharpe, Ibis, 1904, p. 616. Nos. 1263, 1269. ♀; 1289. ♂ ad. River Ja, Jan. 1906.

137. GYMNOBUCCO PELI.

Gymnobucco peli Hartl.; Sharpe, Ibis, 1904, p. 616.

Nos. 1241, 1249. 9 ad.; 1242. J. River Ja, Jan. 1906.

138. HELIOBUCCO BONAPARTII.

Heliobucco bonapartei (Hartl.); Sharpe, Ibis, 1904, p. 617. No. 1254. Q ad. River Ja, Jan. 6, 1906. Ovaries granular.

No. 1025. 9 ad. River Ja, Jan. 17, 1906. Nos. 1684. 9 ad.; 1685. Pull. River Ja, April 18, 1906.

No. 1894. Pull. River Ja, Aug. 7, 1906.

No. 1991. 9 ad. Bitye River, Oct. 23, 1906.

The nestling has the bill flesh-coloured, blackish at the tip. Its plumage does not seem different from that of the old birds.

139. BUCCANODON DUCHAILLUI.
Buccanodon duchaillui Cass.; Sharpe, Ibis, 1904, p. 617.
Nos. 752, 753. ♀ ad. Efulen, June 9–12, 1905.
No. 1178. ♀ ad. River Ja, Dec. 21, 1905.
No. 1250. ♂ ad. ,, Jan. 5, 1906.
No. 2109. ♀ imm. Bitye, River Ja, Nov. 30, 1906.

140. BARBATULA SUBSULFUREA. Barbatula subsulfurea (Fraser); Sharpe, Ibis, 1904, p. 617. No. 1243. & ad. River Ja, Jan. 4, 1906. Nos. 1326, 1329. & ?. River Ja, Jan. 17–18, 1906. No. 1985. 9 ad. River Ja, Oct. 19, 1906. Eggs in ovary very small.

[A clinking note repeated at various rates of speed, but usually about as fast as one can count, from three to a dozen times before pausing, is one of the bird-sounds that first arrests one's attention in this country. It is made by one or both of the above-named species, which cannot be distinguished when up in a high tree. Indeed, the little bird can rarely be seen at all, both because it perches so high and because it is so small.—G. A. B.]

141. BARBATULA LEUCOLÆMA.

Barbatula leucolæma J. & E. Verr.; Sharpe, Ibis, 1904,
p. 617.
No. 1426. ♀ ad. River Ja, Feb. 16, 1906.

No. 1482. 9 ad. ,, March 1, 1906. Eggs beginning to form.

Nos. 1823, 1834. J 9 ad. River Ja, July 2-8, 1906. No. 1883. 9 ad. River Ja, Aug. 2, 1906.

142. BARBATULA FLAVO-SQUAMATA.

Barbatula flavisquamata (Verr.); Sharpe, Ibis, 1904, p. 618.

 No. 1082.
 \$\varphi\$ ad.
 Zima Country, Oct. 8, 1905.

 Nos. 1350, 1354.
 \$\varphi\$ ad.
 River Ja, Jan. 23-24, 1906.

 No. 1668.
 \$\varphi\$ ad.
 River Ja, April 11, 1906.

 No. 1847.
 \$\varphi\$ ad.
 ", July 17, 1906.

143. TRACHYLÆMUS PURPURATUS.
Trachylæmus purpuratus Verr.; Sharpe, Ibis, 1904, p. 618.
No. 942. ♀ ad. Efulen, July 20, 1905.
No. 1001. ♂ ad. ,, Aug. 4, 1905.
No. 1216. ♂ ad. River Ja, Dec. 31, 1905.

144. TRICHOLÆMA FLAVIPUNCTATA.

Tricholama flavipunctatum Verr.; Sharpe, Ibis, 1904, p. 618.

No. 1110. 9 ad. Zima Country, Oct. 11, 1905. No. 1593. 3 ad. River Ja, March 22, 1906. No. 1648. 3 ad. ,, April 3, 1906.

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145. Dendromus nivosus.

Dendromus nivosus (Sw.); Sharpe, Ibis, 1904, p. 619.

No. 1129. S ad. Zima Country, Oct. 13, 1905. Testes very small.

Nos. 1233. 9 juv.; 1252, 1319. 3 ad. River Ja, Jan. 2-15, 1906.

No. 1410. J juv. River Ja, Feb. 12, 1906.

No. 1613. J ad. ,, March 26, 1906.

No. 2026. J ad. Bitye, River Ja, Oct. 10, 1906.

146. Dendromus permistus.

Dendromus permistus (Reichenow); Sharpe, Ibis, 1904, p. 619.

No. 1272. 9 ad. River Ja, Jan. 8, 1906.

No. 1408. 9 ad. ,, Feb. 10, 1906.

No. 2110. 9 ad. Bitye, River Ja, Dec. 1, 1906.

147. Dendromus caroli.

Dendromus caroli (Malh.); Sharpe, Ibis, 1904, p. 619.

No. 1297. 3 ad. River Ja, Jan. 13, 1906. Testes rather large.

No. 1639. 9 ad. River Ja, March 21, 1906.

148. Dendropicus gabonensis.

Dendropicus gabonensis (Verr.); Sharpe, Ibis, 1904, p. 619. No. 1136. ♂ ad. River Ja, Oct. 22, 1905.

149. DENDROPICUS CAMERUNENSIS, n. sp.

 J. similis D. lafresnayei, sed ubique saturatior et viridescentior; secundariis intus conspicuè albo, nec aureoflavo, fasciatim notatis. Long. tot. 5.5 poll., culm. 0.7, alæ 3.3, caudæ 1.7, tarsi 0.55.

| No. | 1507. | 3 | ad. | River | Ja, | Marc    | h | 6, | 1906. |  |
|-----|-------|---|-----|-------|-----|---------|---|----|-------|--|
| -   |       |   |     |       |     | 700 011 |   |    |       |  |

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No. 1611. 3 ad. ,, March 26, 1906.
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No. 1802. 3 ad. Bitye, River Ja, June 26, 1906.

No. 1859. 2 ad. " " July 25, 1906.

150. Mesopicus ellioti.

Mesopicus ellioti (Cass.); Sharpe, Ibis, 1904, p. 621.

No. 1181. 9 ad. River Ja, Dec. 22, 1905. Ovaries granular.

This is the first female specimen sent by Mr. Bates. It

has a black head, instead of having a red hinder crown and nape. It agrees with Cassin's description (Pr. Acad. Nat. Sci. Philad. 1863, p. 197).

151. VERREAUXIA AFRICANA. Verreauxia africana (Verr.); Sharpe, Ibis, 1904, p. 620. No. 1337. ♂ ad. River Ja, Jan. 22, 1906. No. 1422. ♀ ad. 25 miles from Kribi, Feb. 16, 1906.
Eggs beginning to form. No. 1521. ♀ ad. 25 miles from Kribi, March 8, 1906. No. 1642. ♂ ad. River Ja, March 31, 1906. No. 1969. ♂ ad. 25 miles from Kribi, Sept. 24, 1906.

No. 2122. 3 ad. Bitye, River Ja, Dec. 9, 1906.

152. HIRUNDO RUSTICA.

Hirundo rustica L.; Reichenow, Vög. Afrikas, ii. p. 406 (1903); Sharpe, Hand-l. B. iii. p. 132 (1903).

No. 732. Ad. Efulen. [Shot and skinned by a native in my absence.—G. L. B.]

153. HIRUNDO GORDONI.

Hirundo gordoni Jard.; Sharpe, Ibis, 1905, p. 467.

No. 1466.  $\bigcirc$  ad. River Ja, Feb. 26, 1906. Eggs beginning to be formed.

Nos. 1775, 1812. ♂ ♀ juv. River Ja, June 1906.

154. PSALIDOPROCNE NITENS.

Psalidoprocne nitens (Cass.); Sharpe, Ibis, 1904, p. 622; Sharpe, Hand-l. B. iii. p. 202 (1903).

No. 996. 2 ad. Efulen, Aug. 3, 1905.

Nos. 1040, 1041. Juv. Efulen, Aug. 14, 1905.

155. PSALIDOPROCNE PETITI.

Psalidoprocne petiti Sharpe & Bouvier; Reichenow, Vög. Afrikas, ii. p. 428 (1903); Sharpe, Ibis, 1905, p. 467.

No. 1687. 3 ad. River Ja, April 20, 1906.

Nos. 1826, 1833. 3 ad., 2 juv. River Ja, July 2, 8, 1906.

[These two species of *Psalidoprocne* seem to have learned the secret of perpetual motion. They may be seen sailing

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in endless curves over cleared land at almost any time that one looks for them. The kind of place where they most abound is a freshly-burned clearing; but often over the village street they are very numerous. Boys can sometimes knock one down with a stick when they sail near the ground. Sometimes, especially in the afternoon, some of these birds may be seen perched on a bare twig, at rest; but if watched they soon sail away again.

They are said to nest in holes bored in clay banks, the sides of pitfalls dug for animals in the forest being favourite places. One of my specimens (a female), brought to me alive, was said to have been caught in a hole in the side of a pit. Some of these birds repeatedly visited a freshlydug place on a hillside near my house, and even perched on the timbers there, but seemed to decide at last against it as a nesting-place.

A number of male examples of *P. petiti* were shot in the months of February, April, May, and June, and all, without exception, had the breeding-organs large.

In the Zima Country these birds were seen flying over a village, hunting for insects.—G. L. B.]

156. Alseonax epulata.

 Alseonax epulata (Cass.); Sharpe, Ibis, 1904, p. 622.

 Nos. 832, 833. ♂ ♀. Efulen, July 3, 1905.

 No. 845. ♂ ad.
 ,, July 5, 1905.

 No. 1052. ♀ ad.
 ,, Aug. 15, 1905.

 Nos. 1555, 1555 a.
 Juv. River Ja, March 1906.

The last two specimens were procured by a boy during Mr. Bates's absence. They seem to me to be immature, although I cannot see any sign of rufous spotting.

157. ALSEONAX FANTISIENSIS.
Alseonax fantisiensis Sharpe ; id. Ibis, 1904, p. 622.
No. 825. ♀ ad. Efulen, July 1, 1904.
No. 978. ♀ ad. ,, July 27, 1905.
No. 1947. Juv. Lobo River, Aug. 18, 1906.
No. 2125. ♂ ad. East of Ebolewo'o, Dec. 15, 1906.

158. STIZORHINA FRASERI.

Stizorhina fraseri Strickl.; Sharpe, Ibis, 1904, p. 623.

No. 888. 9 ad. Efulen, July 12, 1905.

No. 1024. 2 ad. ,, Aug. 9, 1905.

Nos. 1099, 1116. 3 ad. Zima Country, Oct. 10-12, 1905.

Nos. 1092, 1105. 9 ad. Zima Country, Oct. 8, 11, 1905.

No. 1124. 3 pull. ,, ,, Oct. 12, 1905.

No. 1373. J imm. River Ja, Jan. 29, 1906.

No. 1421. 3 ad. ,, Feb. 16, 1906.

Nos. 1595, 1609. ♀; 1608. ♂ ad. River Ja, March 23, 26, 1906.

No. 1645. J ad. River Ja, April 2, 1906.

No. 1867. 9 ad. ,, July 27, 1906.

The female is smaller than the male, having the wing 3.5 inches, as against 3.85-3.95 inches.

The nestling is an extraordinary-looking little bird, the feathering being like that of the adult, but rather paler.

[This bird differs from most Flycatchers not only in the colouring (which closely mimics that of *Neocossyphus poensis*), but also in manner, not having the habit of circling back to the same perch when it flies after an insect. The only sound I had heard made by this bird was a harsh little two-syllabled cry, till I shot the specimen No. 1645. That was perched on a vine hanging from trees in the forest, vigorously repeating a little song—or what seemed to be intended for a song, though unmusical,—consisting of five syllables in a monotone. This song sounded much like the four-syllabled song of *Tchitrea viridis*, with an added syllable. The singer proved to be a male with the breeding-organs large. The date was in April.—G. L. B.]

159. MUSCICAPA GRISOLA. Muscicapa grisola L.; Sharpe, Ibis, 1904, p. 623. No. 1631. J ad. River Ja, March 29, 1906.

160. MUSCICAPA LUGENS.
Muscicapa lugens (Hartl.); Sharpe, Ibis, 1904, p. 623.
No. 781. ♂ ad. Efulen, June 14, 1905.
No. 824. ♀ ad. ,, July 1, 1905.

Nos. 1046, 1076. J 2 ad. Efulen, Aug. 15, 24, 1905.

No. 1464. 9 ad. River Ja, Feb. 29, 1906.

Nos. 2118. 9 ad.; 2118 a. Juv. Bitye, River Ja, Dec. 5, 1906.

[As already stated ('Ibis,' 1905, p. 94), this Flycatcher is never seen except over the water of some good-sized stream. I have lately found two nests of this species, both placed on snags projecting up out of the water; in one case the nest was five or six feet above the surface of the stream, in the other only about two feet. The structure, most carefully examined, was shallow and cup-shaped, made of moss and fine weed-stems and rootlets, with a few fine grass-tops for lining. It contained two half-grown young; the month was seen early in December. The young birds referred to had the feathers with the tips just emerging from the sheaths, and these tips were of a light brown colour. —G. L. B.]

161. MUSCICAPA CÆRULESCENS.

Muscicapa cærulescens (Hartl.); Sharpe, Ibis, 1904, p. 624.

No. 1098. 9 ad. Zima Country, Oct. 10, 1905. Ovaries small.

No. 1420. 3 ad. River Ja, Feb. 16, 1906.

162. Pœdilorhynchus camerunensis.

Pædilorhynchus camerunensis Reichenow; Sharpe, Ibis, 1904, p. 624.

No. 806. J ad. Efulen, June 26, 1905.

No. 1045. 9 ad. ,, Aug. 14, 1905.

No. 1452. 9 ad. River Ja, Feb. 22, 1906.

No. 1559. 2. ,, March 16, 1906.

No. 1629. J ad. ,, March 29, 1906.

No. 2013.  $\[cmmode]$  ad. Bitye, River Ja, Oct. 28, 1906. Small egg in ovary.

No. 2069. S ad. Bitye, River Ja, Nov. 15, 1906. Testes very small.

A common little bird at the Ja, often seen sitting silent and

motionless on a bare twig, preferably on the tip of an upright dead branch, like the knob on the top of a flagstaff, flying out occasionally after a passing insect and returning again. It builds in abandoned nests of the Weavers, *Heterhyphantes nigricollis* and *Hyphantornis cucullatus*. I have been shown several nests in such situations with a slight lining of fine plant-fibres inside the larger structure. Specimen No. 1559 (a sitting female) and the two little nestlings, No. 1555, were shot or taken in such nests; and I have seen a pair of the little Flycatchers entering an old Weaver's nest with building-material. The eggs have been found, and are of a plain terra-cotta colour, rather long, measuring 20 or 21 mm.  $\times$  13 mm.; only two are laid. The bird has been found breeding in December, in February, in March, and in June.

This species had never been obtained at Efulen till 1905.—G. L. B.]

163. Chloropeta batesi.

Chloropeta batesi Sharpe, Ibis, 1905, p. 468.

No. 1395. J ad. River Ja, Feb. 7, 1906.

| No. 1439.  | 8 ad. | 2.2   | Feb. 18, 1906.                |
|------------|-------|-------|-------------------------------|
| No. 1472.  | ♂ ad. | 22    | Feb. 27, 1906.                |
| No. 1539.  | J ad. | "     | March 12, 1906.               |
| Nos. 1760, | 1818. | ♂ ad. | River Ja, June, 13, 30, 1906. |

Testes large.

These specimens agree with the types described by me (l. s. c.).

164. DIAPHOROPHYIA CASTANEA.

Diaphorophyia castanea (Fraser); Sharpe, Ibis, 1904, p. 625; 1905, p. 468.

| No. 733. | 3 ad.  | Efulen, | June 6, 1905.  |
|----------|--------|---------|----------------|
| No. 743. | ♀ ad.  | 23      | June 8, 1905.  |
| No. 807. | J juv. | >>      | June 26, 1905. |
| No. 815. | ♂ aid. | >>      | June 28, 1905. |
| No. 866. | ♀ ad.  | "       | July 10, 1905. |
| No. 890. | 8 ad.  | 29      | July 12, 1905. |
| No. 988. | 8 imm  | • >>    | July 28, 1905. |

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West,Newman imp.

1. DIAPHOROPHYIA CHLOROPHRYS. 2. D. ANSORGEI. No. 1419. J ad. River Ja, Feb. 15, 1906. No. 1604. J ad. ,, March 25, 1906. Nos. 1793, 1794. & ad. River Ja, June 23, 1906. [Obtained in the Zima Country.—G. L. B.]

165. DIAPHOROPHYIA CHLOROPHRYS. (Pl. X. fig. 1.)

Diaphorophyia chlorophrys Alexander; id. Ibis, 1903, p. 384; Sharpe, Ibis, 1905, p. 469.

No. 1467. J juv. River Ja, Feb. 25, 1906. Testes very small.

Nos. 1557, 1558.  $\mathcal{J} \cong$  ad. River Ja, March 16, 1906. Eggs being formed in female.

No. 1565. 3 ad. River Ja, March 17, 1906.

Nos. 1575, 1576. J. River Ja, March 20, 1906. Testes large.

No. 1799. J ad. River Ja, June 25, 1906. Testes large.

No. 1838. & ad. River Ja, July 10, 1906. Testes large.

No. 2015. 3 ad. Bitye, River Ja. Oct. 28, 1906. Testes large.

No. 2065.  $\varphi$  ad. Bitye, River Ja, Nov. 12, 1906. Ovary granular.

The young bird is browner above and not so green, but the throat seems to have been chestnut with a number of green feathers appearing.

166. DIAPHOROPHYIA ANSORGII. (Pl. X. fig. 2.)

Diaphorophyia ansorgei Hartert, Bull. B. O. C. xv. p. 74 (1905).

No. 1444. 9 ad. (eggs forming). River Ja, Feb. 20, 1906.

This species had been previously recorded only from Angola.

167. PLATYSTIRA CYANEA.

Platystira cyanea (P. L. S. Müll.); Sharpe, Ibis, 1905, p. 469.

Nos. 1435, 1457. J ad. River Ja, Feb. 18, 23, 1906.

No. 1484. ç juv. River Ja, March 1, 1906. Ovaries very small.

No. 1572. 3 ad. River Ja, March 19, 1906. Testes large.

No. 2063.  $\circ$  ad. Bitye, River Ja, Nov. 12, 1906. Ovary granular.

No. 2072. J ad. Bitye, River Ja, Nov. 16, 1906. Testes small.

No. 2119. 9 ad. Bitye, River Ja, Dec. 5, 1906. Small ova in ovary.

[This bird is common at the Ja and on the coast, but is less so in the strictly forest-country between, for its resort is the neighbourhood of villages. It attracts attention by its appearance, on account of the red wattle over the eye, which in life is very conspicuous. Its little song is very noticeable also, because of the wide difference in pitch of the four notes which compose it. A musical friend has told me what notes of the scale it sings, but I have forgotten them. It has the same habit as *Diaphorophyia castanea* (see 'Ibis,' 1905, p. 94) of making a sharp flapping sound with its wings as it flies. This is done but occasionally, evidently to attract attention, and perhaps only by the male.— G. L. B.]

168. BIAS MUSICUS.

Bias musicus (V.); Sharpe, Ibis, 1904, p. 626.

No. 1237. ♂ ad. River Ja, Jan. 3, 1906. Testes small. No. 1795. ♂ juv. ,, June 23, 1906.

No. 2123. Pull. Bitye, River Ja, Dec. 10, 1906.

The nestling is rufous like the old female, but is mottled with whitish longitudinal centres to the feathers of the upper surface, which have also black margins. The crown and sides of face are black with rufous margins to the feathers; the under surface is white, with a faint tinge of cinnamonbuff.

The young male is also similarly coloured and mottled, shewing that the first plumage resembles that of the adult female, and is not black. 169. MEGABIAS ATRILATUS.

Megabias atrilatus (Cass.); Sharpe, Ibis, 1904, p. 626. No. 1638. 9 ad. River Ja, March 30, 1906.

170. SMITHORNIS CAMERUNENSIS.

Smithornis camerunensis Sharpe, Ibis, 1905, p. 469.

No. 1142. Ad. River Ja. Skinned by a native during my absence.

No. 1345. J. River Ja, Jan. 22, 1906.

No. 1513. J ad. River Ja, March 7, 1906. Testes large.

Nos. 1505, 1514, 1569. S q ad. River Ja, March 6-22, 1906.

No. 1860. 2 ad. River Ja, July 26, 1906.

No. 2081. 3 ad. Bitye, River Ja, Nov. 19, 1906. Testes small.

The first specimen seut by Mr. Bates was a female, and I supposed it to be the female of a form allied to *S. rufilateralis*. The acquisition of the male bird shews that I was quite mistaken in this surmise, and that the species is a form of *Smithornis capensis*, but quite distinct from that species. It is distinguished by its black ear-coverts, and by the broader and much blacker stripes on the under surface.

[The female specimen, No. 521, which is the type of this species ('Ibis,' 1905, p. 469), was caught at evening in a nest. This was an exquisite little hanging pocket-shaped structure, and was found in the bushes on waste ground not far from the village. There were three very young birds in it, besides the mother. This was in May. Specimens since obtained in March were breeding.

A nest similar to the one mentioned above, belonging to Smithornis zenkeri, has already been described in the note on that bird ('Ibis,' 1905, p. 95). In the same note there is mentioned the rattling noise made by the two species of Smithornis which I then knew. S. camerunensis makes the same noise. It seems to be produced mechanically while the bird is taking a short circuit-flight, as it is never heard when the bird is at rest. S. camerunensis, which I have found only at the Ja, is a bird of the bushes in open country. S. zenkeri and S. rufilateralis are denizens of the forest, and have been found both at Efulen and at the Ja.—G. L. B.]

171. Smithornis Zenkeri.

Smithornis zenkeri Reichenow; Sharpe, Ibis, 1904, p. 627. No. 1224. J ad. River Ja, Jan. 1, 1906.

No. 1327. J ad. ,, Jan. 18, 1906. Testes rather large.

Nos. 1486, 1566. 9; 1584. 3 ad. River Ja, March 2-21, 1906.

Nos. 1788, 1797. J ad. River Ja, June 21-24, 1906.

172. Smithornis rufilateralis.

Smithornis rufilateralis Gray; Reichenow, Vög. Afrikas, ii. p. 471 (1903).

Nos. 1085, 1091.  $\mathcal{F}$ . Zima Country, Oct. 8, 1905. In the female the eggs were just beginning to be formed, according to Mr. Bates. The head is browner, and there are not so many black streaks as in the typical specimen, which, from its blacker head, seems to me to be very probably a young male, rather than a female. The tips to the coverts are rufescent and not white as in typical *S. rufilateralis*.

No. 1485. 3 ad. River Ja, March 9, 1906. Testes rather large.

No. 1588. 3 ad. River Ja, March 22, 1906.

Nos. 1926, 1927. 3 9 ad. 25 miles from Kribi, Sept. 8, 1906.

No. 1978. 9 ad. River Ja.

173. ARTOMYIAS FULIGINOSA.

Artomyias fuliginosa Verr. ; Sharpe, Ibis, 1905, p. 470.

Nos. 776, 777. & ad. et juv. Efulen, June 13, 1905.

No. 830. 3 ad. Efulen, July 3, 1905. Testes very small.

No. 1131. J. Zima Country, Oct. 13, 1905.

No. 1836. J imm. River Ja, July 9, 1906. Testes small.

Nos. 2056. 9 ad.; 2080, 2102. J ad. et juv. Bitye, River Ja, Nov. 5–29, 1906.

The young bird is spotted and banded with whitish tips to the feathers. It is slightly older than that described by me (l. c.).

174. ERYTHROCERCUS MACCALLI.

Erythrocercus maccalli (Cass.); Sharpe, Ibis, 1904, p. 628. No. 802. ? ? . Efulen, June 24, 1905.

Nos. 1510. Juv.; 1511. ♂ ad. River Ja, March 7, 1906. No. 1520. ♀ ad. River Ja, March 8, 1906.

No. 1626. 9 ad. ,, March 29, 1906.

No. 1803. J ad. ,, June 26, 1906. Testes small. The female has not the chestnut crown of the male, but the fore-part of the head is dingy brown.

[This smallest of the Flycatchers has not the manner of catching insects which is characteristic of the family. Instead of sitting on the watch, solitary and silent, the little *Erythrocercus* goes in small companies of three or four or half a dozen, flitting busily from twig to twig of the great trees of the forest in search of insects, making all the while a lively twittering.—G. L. B.]

175. TROCHOCERCUS NITENS.

| Trochocercus nitens Cass.; Sharpe, Ibis, 1904, p. 629. |                           |  |  |
|--|---------------------------|--|--|
| No. 789. 9 juv. Efulen, J                              | une 16, 1905.             |  |  |
| Nos. 837, 898. 3 ad. et juv.                           | Efulen, July 3, 14, 1905. |  |  |
| No. 1007, 1012. 3 9 juv.                               | Efulen, Aug. 5, 7, 1905.  |  |  |
| No. 1062. 3 juv. Efulen, A                             | Aug. 17, 1905.            |  |  |
| No. 1083. 3 juv. Zima Co                               | untry, Oct. 8, 1905.      |  |  |
| No. 1362. J ad. River Ja,                              | Jan. 25, 1906.            |  |  |
| No. 1526. J ad. "                                      | March 9, 1906.            |  |  |
| No. 1487. 2 ad. "                                      | March 3, 1906.            |  |  |
| No. 1526. J ad. ,,                                     | March 9, 1906.            |  |  |
| No. 1863. J ad. "                                      | July 26, 1906.            |  |  |

It should be noted that in the birds from the River Ja the female differs from the male in having no black on the throat, this part being grey, only a little lighter than the rest of the under surface. Dr. Reichenow has described the SER. IX.—VOL. J. 2 H female in the same terms, so that some of the specimens alluded to as young birds may be adult females.

176. TCHITREA VIRIDIS.

Tchitrea viridis (P. L. S. Müll.); Sharpe, Ibis, 1905, p. 470.

No. 744. 9 ad. Efulen, June 8, 1905.

No. 1123. ♂ ad. Zima Country, Oct. 12, 1905. Testes rather large.

| No. 1364. | J imm. | River Ja, | Jan. 25, 1906.  |
|-----------|--------|-----------|-----------------|
| No. 1429. | ♀ ad.  | "         | Feb. 17, 1906.  |
| No. 1448. | 3 ad.  | "         | Feb. 21, 1906.  |
| No. 1628. | ♂ ad.  | "         | March 29, 1906. |
| No. 1644. | J ad.  | ,,        | April 1, 1906.  |
|           |        |           |                 |

[In my note on this bird ('Ibis,' 1905, p. 95) I described its little cry, but did not then know its song, or rather supposed it to be made by another species, though it is one of the commonest of bird-sounds. This song, or rather unmusical attempt at a song, is a monotonous repetition of four notes in the same key, and is uttered with emphasis and persistence by the white-plumed male bird, in the bushes behind the very houses of the village, especially early in the morning.

I have now found nests of *Tchitrea viridis* with eggs, or, rather, with one egg in each. I think, at least<sup>\*</sup><sub>s</sub> in many cases, that only one is laid. It is pinkish white with brown speckles, from 18 to 20 mm. long and 14 mm. wide. That the male is in the habit of helping in the incubation has now been further proved by getting a male specimen in breeding-plumage, shot on the nest.—G. L. B.]

177. TCHITREA TRICOLOR.

 Tchitrea tricolor (Fras.);
 Sharpe, Ibis, 1905, p. 630.

 No. 788. ♂ ad. Efulen, June 15, 1905.

 No. 880. ♀ imm. ,,
 July 11, 1905. Eggs forming.

 No. 891. ♂ ad. ,,
 July 12, 1905.

 No. 1054. ♀ ad. ,,
 Aug. 15, 1905.

 No. 1094. ♂ ad. Zima Country, Oct. 9, 1905.
 Testes

very large.

No. 1102. 9 imm. Zima Country, Oct. 10, 1905. Eggs forming.

No. 1371. J ad. River Ja, Jan. 27, 1906. Testes large.

No. 1923. 3 ad. 25 miles from Kribi, Sept. 5, 1906.

Nos. 1929, 1970. 9 ad. 25 miles from Kribi, Sept. 11, 24, 1906.

As a rule, *T. tricolor* can be distinguished from *T. rufo*cinerea by its grey tail, which resembles the back. *T. rufo*cinerea has a red tail, and at first sight the two species look distinct enough.

I have before me, however, grey-tailed birds (i. e., T. tricolor) which have a great deal of grey overspreading the throat and breast, though the under tail-coverts are bright chestnut. The full-plumaged male has a blackish throat and the rest of the under surface bright chestnut from the lower throat downwards. In three females the breast and abdomen are cinnamon or light chestnut, while the grey colour occupies the throat, and in two of them spreads over the chest and flanks. A male is almost entirely blue-grey beneath, save for the chestnut under tail-coverts.

When the grey colour is seen on the under surface the bird would be indistinguishable from T. rufo-cinerea but for the red back and tail of the latter. I confess that I cannot follow all the plumages of T. tricolor.

[This bird is less often seen than T. viridis, and keeps more to the forest, where it is often a member of the "éjak." The male of this species sits on the eggs. No. 1371, a male with very large breeding-organs, was shot on the nest. The contents and bits of the shell of one egg (possibly two) were stuck to the feathers when it was brought to me. The nest was just like that of T. viridis, except that it had a deep base of moss, and that fine rootlets were used, as well as stem-fibres, in its construction.

Birds of this species were found breeding in nearly every month in which it was collected; indeed, the same may be said of the other two species of *Tchitrea*.—G. L. B.] 178. TCHITREA RUFO-CINEREA.

 Tchitrea rufocinerea (Cab.); Sharpe, Ibis, 1905, p. 631.

 No. 744. ♀ ad. Efulen, June 8, 1905. Eggs forming.

 No. 788. ♂ ad. ,, June 15, 1905.

 No. 820. ♂ ad. ,, June 30, 1905.

 No. 80, 891. ♂ ♀ ad. Efulen, July 11, 1905.

 No. 1054. ♀ ad. Efulen, Aug. 15, 1905.

 No. 1097. ♂ ad. Zima Country, Oct. 9, 1905.

 No. 1108, 1113. ♂ ad. Zima Country, Oct. 11, 1905.

 No. 1121. ♀ ad. Zima Country, Oct. 12, 1905.

No. 1261. J ad. River Ja, Jan. 7, 1906. Testes very large.

No. 1366. ♀ ad. River Ja, Jan. 26, 1906. Eggs forming. No. 1503. ♂ ad. ,, March 15, 1906. Testes very large.

No. 1616. 9 ad. River Ja, March 27, 1906.

Nos. 1890, 1900, 1902. Z Q ad. River Ja, Aug. 7, 9, 13, 1906.

No. 1993. & ad. Bitye, River Ja, Oct. 24, 1906.

All the Zima birds are grey-breasted, but one of them (1097) has a considerable admixture of rufous.

[Two nests known to be those of this bird have been obtained. Specimens No. 1366, a female, and No. 1503, a male with large breeding-organs, were secured on the nest, each sitting on one egg. The egg in both cases was broken. These two nests were very like those of T. viridis cup-shaped, with fine hair-like plant-fibres inside, about 45 mm. wide at the top, interior measurement. They differed from the nests of T. viridis, however, in having moss as a portion of the material of the lower part.

The species is found mostly in the forest. It has songnotes similar to those of *T. viridis.*—G. L. B.]

179. Elminia longicauda.

Elminia longicauda (Swains.); Sharpe, Ibis, 1905, p. 631. No. 816. 9 pull. Efulen, June 28, 1905.

No. 1183.  $\Im$  ad. River Ja, Dec. 23, 1905. Ovaries small.

No. 1256. 9 ad. River Ja, Jan. 6, 1906. Ovaries granular.

Nos. 1417, 1418. 3 9 ad. River Ja, Feb. 14, 1906.

The nestling resembles the adult, but is ashy-grey above with a very little blue shade. The under surface is very pale ashy, slightly tinted with blue, with the belly and under tail-coverts whiter. On the head and wings are some pale sandy-whitish edgings to the feathers.

No. 1750. Juv. River Ja, June 11, 1906.

Nos. 2093. 9; 2094. 3 ad. Bitye, River Ja, Nov. 24, 1906.

[To the note on this bird already given ('Ibis,' 1905, p. 96) can now be added a description of its exquisite little nest. This is shallow, cup-shaped, and very small—about 40 mm. wide at the top inside and 15 mm. deep. It is made of very fine fibres like those of dry plantain leaf-stalks, coiled around, and held together in a net of fine white gossamer, which also serves to attach the nest to the limb on which it is placed, and to hold a decoration of lichens on the outside of the nest.

This *Elminia*, unlike the species of *Tchitrea*, seems, from specimens thus far examined, to have a distinct breeding-season; breeding-specimens and nests were found in June, while examples shot at the opposite time of the year were not breeding, and no nests were then found.—G. L. B.]

180. CORACINA AZUREA.

Coracina azurea (Cass.); Sharpe, Ibis, 1904, p. 631.

No. 1087. J ad. Zima Country, Oct. 8, 1905. Testes large.

No. 1921. 3 ad. East of Ebolewo'o, Aug. 20, 1906.

181. CAMPOPHAGA QUISCALINA.

Campophaga quiscalina Finsch; Sharpe, Ibis, 1904, p. 632.

No. 1843. 3 ad. River Ja, July 13, 1906. Testes rather large.

No. 1872. 2 ad. River Ja, July 28, 1906. Small eggs in ovary. 182. CRINIGER CHLORONOTUS.

Criniger chloronotus (Cass.); Sharpe, Ibis, 1904, p. 632. No. 1436.  $\circ$  ad. River Ja, Feb. 18, 1906.

183. CRINIGER CALURUS.

Criniger calurus (Cass.); Sharpe, Ibis, 1904, p. 632.

Nos. 794, 805, 809. 3 ad. Efulen, June 16, 26, 1905.

Nos. 834, 835. J ad. Efulen, July 3, 1905.

No. 1434. J ad. River Ja, Feb. 18, 1906.

Nos. 1537, 1601. ♂ ♀ ad. River Ja, March 12, 24, 1906. No. 2038. ♀ ad. Bitye, River Ja, Nov. 2, 1906. Small egg in ovary.

184. CRINIGER CABANISI.

Criniger cabanisi Sharpe, Cat. B. vi. p. 83 (1881); id. Hand-l. B. iii. p. 317 (1901).

Phyllastrephus cabanisi Reichenow, Vög. Afrikas, iii. p. 401 (1904).

a. J ad. Benito River, French Congo, Feb. 18, 1901.

No. 792. J ad. Efulen, June 16, 1905.

No. 817. J ad. ,, June 29, 1905.

These specimens differ from a series of *Criniger tricolor* in their larger size (wing 3.4) and slightly duller coloration. The culmen measures 0.9-0.95 inch.

In C. tricolor the males have the culmen 0.75-0.8 inch and the females 0.7. I find, however, that these measurements vary a good deal, and a close comparison of a large series will probably end in the uniting of the two forms.

185. Bleda flavigula.

Bleda flavigula (Cab.); Sharpe, Hand-l. B. iii. p. 320 (1901).

Phyllastrephus flavigula Reichenow, Vög. Afrikas, ii. p. 395 (1904).

Nos. 1654, 1686. J ad. River Ja, April 1906.

No. 1851. 3 ad. River Ja, July 20, 1906. Testes large. No. 2008. 3 juv. Bitye, River Ja, Oct. 27, 1906. Testes very small.

Nos. 2050, 2084.  $\circ$  ad. Bitye, River Ja, Nov. 5, 19, 1906. Small ova in ovary.

186. Bleda simplex.

Bleda simplex (Temm.); Sharpe, Ibis, 1904, p. 632.

Nos. 1496, 1504.  $\mathcal{J} \ condots$  and River Ja, March 4, 6, 1906. [To the note on this bird already given ('Ibis,'1905, p. 96) can now be added a description of its nest and eggs. Specimens Nos. 1504 and 1598 were both caught on their nests at evening, in each case two eggs being found under the bird. The nests were shallow and cup-shaped, about 70 mm. wide at the top inside ; of rather rude and slight construction, without lining; one was composed of small weed-stems, and the other of the same with dry tendrils intermixed. Each nest was set in the forks of a bush or big half-shrubby weed. The eggs, about  $24 \times 17$  mm. in size, were of a pale ground-tint marked with dark tangled lines of brown, with fainter lines of blue. These wavy and zigzag lines, with dots here and there, look curiously like Arabic writing.— G. L. B.]

187. BLEDA SERINA.

Bleda serina (Verr.); Sharpe, Ibis, 1904, p. 633.

No. 1998. 9 ad. Bitye, River Ja, Oct. 25, 1906. Small egg in ovary.

No. 2010. 3 ad. Bitye, River Ja, Oct. 28, 1906. Testes of medium size.

188. Bleda syndactyla.

Bleda syndactyla (Swains.); Sharpe, Ibis, 1904, p. 633.

No. 1765. 9 ad. River Ja, June 14, 1906. Ovary granular.

The under tail-coverts in this specimen are slightly tinged with chestnut.

No. 1904. & ad. River Ja, Aug. 10, 1906. Testes small.

No. 1946. J ad. 25 miles from Kribi, Sept. 20, 1906. Testes small.

[Obtained in the Zima Country.-G. L. B.]

189. BLEDA ALBIGULARIS.

Bleda albigularis (Sharpe); id. Hand-l. B. iii. p. 322 (1901).

Phyllastrephus albigularis Reichenow, Vög. Afrikas, iii. p. 400 (1904).

No. 1218. J ad. River Ja, Dec. 31, 1905.

This specimen is much larger than the type in the Muscum. The latter was obtained in Fanti by the late Governor Ussher, and has the wing 2.7 inches long. Mr. Bates's specimen, which is a male, has a wing of 3.4 inches, which is rather a large difference. Two specimens from Milangi and Chiradzulu in Nyasa-land have the wing-measurement 3.8 inches, and are altogether larger in size, though very similar in plumage. Until a large series is obtained, it is somewhat difficult to determine whether these different dimensions indicate different races.

190. BLEDA INDICATOR.

Bleda indicator (J. & E. Verreaux); Sharpe, Hand-l. B. iii. p. 322 (1901).

Phyllastrephus indicator Reichenow, Vög. Afrikas, iii. p. 390 (1904).

No. 1018. 9 ad. Efulen, Aug. 8, 1905. Eggs forming. No. 1072. 3 ad. ,, Aug. 21, 1905. Testes rather large.

No. 1857. 3 ad. River Ja, July 24, 1906. Testes of medium size.

Both these birds have dusky spots at the end of the outer tail-feathers, and there seems to be a complete link between *B. batesi* and *B. indicator* in this respect. It is doubtful if the former species can be upheld.

191. Bleda clamans.

Bleda clamans (Sjostedt) ; Sharpe, Ibis, 1904, p. 634.

No. 1424.  $\varphi$  ad. River Ja, Feb. 16, 1906. Eggs forming.

No. 1869.  $\circ$  ad. River Ja, July 28, 1906. Ova in ovary.

Nos. 1918, 1919. 3 9 ad. Lobo River, Aug. 18, 1906.

192. Bleda leucopleura.

Bleda leucopleura (Cass.); Sharpe, Ibis, 1904, p. 635. No. 1106. Z ad. Zima Country, Oct. 11, 1905. 193. Bleda notata.

Bleda notata (Cass.); Sharpe, Ibis, 1905, p. 471.

No. 762. 3 ad. Efulen, June 12, 1905.

No. 852. 2 ad. ,, July 6, 1905. Eggs forming. Nos. 1176, 1192. 3 ad. River Ja, Dec. 21, 25, 1905.

Nos. 1943, 1944. ♂; 1956. ♀ ad. 25 miles from Kribi, Sept. 19, 20, 1906.

[Obtained in the Zima Country.-G. L. B.]

194. Bleda tricolor.

Bleda tricolor (Cass.); Sharpe, Ibis, 1904, p. 633.

No. 1133. J ad. Zima Country, Oct. 14, 1905. Testes of medium size.

No. 1636. 3 ad. River Ja, March 30, 1906.

No. 1637. 9 ad. ,, March 30, 1906. Eggs forming.

No. 1849. ♂ ad. River Ja, July 18, 1906. Testes rather large.

195. BLEDA BATESI.

Bleda batesi Sharpe, Ibis, 1904, p. 634.

No. 1207. 3 ad. River Ja, Dec. 29, 1905. Testes small.

196. Andropadus efulenensis.

Andropadus efulenensis Sharpe, Ibis, 1904, p. 636.

No. 727. Juv. Efulen, 1905.

Nos. 764, 779. 3 ad. Efulen, June 10-14, 1905.

No. 1026. 3 ad. Efulen, Aug. 10, 1905.

No. 1117. Juv. Zima Country, Oct. 12, 1905.

No. 1156. J juv. River Ja, Dec. 17, 1905.

No. 1236. 9 juv. ,, Jan. 3, 1906.

No. 1942. 9 ad. 25 miles from Kribi, Sept. 19, 1906. Ovary granular.

No. 1980. J juv. Bitye, River Ja, Oct. 18, 1906.

The male shot on the 10th of August has a brighter yellow moustachial streak than is found in the rest of the series, and approaches in this respect the true *A. latirostris*. 197. Andropadus curvirostris.

Andropadus curvirostris Cass.; Sharpe, Hand-l. B. iii.
p. 323 (1901); Reichenow, Vög. Afrikas, iii. p. 413 (1904).
No. 750. ♀ ad. Efulen, June 9, 1905.

198. EURILLAS VIRENS. Eurillas virens (Cass.); Sharpe, Ibis, 1904, p. 635. Nos. 739, 751. 3 ad. Efulen, June 8, 9, 1905. Efulen, July 4, 1905. No. 843. 3 ad. July 11, 1905. No. 876. ♀ ad. " July 14, 1905. No. 901. ♀ ad. • • No. 1127. 3 ad. Zima Country, Oct. 13, 1905. Nos. 1149, 1872. 9 imm. River Ja, Dec. 15, 20, 1905. No. 4185. 3 ad. River Ja, Dec. 23, 1905. March 6, 1906. No. 1506. 9 ad. ,, No. 1909. 9 ad. Aug. 11, 1906. Small ova ,,

in ovary.

No. 1982. 3 ad. Bitye, River Ja, Oct. 18, 1906. Testes small.

199. EURILLAS CAMARUNENSIS.

*Eurillas camarunensis* (Reichenow); Sharpe, Ibis, 1904, p. 636.

Nos. 1234, 1322. 3 9 ad. River Ja, Jan. 3, 16, 1906. No. 1456. 3 ad. River Ja, Feb. 23, 1906.

[Specimen No. 1506 was shot by a boy with an arrow on its nest, which was in a thick growth of tall half-climbing sedge growing mixed with bushes on waste ground near the village. This nest was placed only two or three feet from the ground. It was rather roughly built, shallow, cup-shaped, but thick, and was composed of dried leaves and small stems, with a scanty lining of fine fibres. The diameters at the top inside were 55 and 60 mm. (a little wider one way than the other). Two eggs were in the nest, of a white ground-colour, with brown speckles very dense at the larger end; size  $21 \times 15$  mm.—G. L. B.]

200. EURILLAS GRACILIS.

Eurillas gracilis (Cab.) ; Sharpe, Ibis, 1904, p. 635.

No. 1127. J ad. Zima Country, Oct. 13, 1905. Testes small.

 No. 1160. ♂ ad. River Ja, Dec. 18, 1905.

 Nos. 1182, 1185. ♀ juv. River Ja, Dec. 23, 1905.

 No. 1283. ♂ ad. River Ja, Jan. 10, 1906.

 No. 1321. ♂ ad. " Jan. 16, 1906.

 Nos. 1332, 1333. ♂ ♀ ad. River Ja, Jan. 19, 1906.

 No. 1360. ♂ ad. River Ja, Jan. 24, 1905.

 Nos. 1491, 1506. ♂ ♀ ad. River Ja, March 3, 6, 1906.

 No. 1671. ♂ ad. River Ja, April 12, 1906.

 No. 1881. ♂ ad. " Aug. 2, 1906. Testes very large.

No. 1994.  $\circ$  ad. Bitye, River Ja, Oct. 24, 1906. Egg in ovary.

Nos. 2004, 2020. Q ad. et juv. Bitye, River Ja, Oct. 27, 29, 1906. Ovary granular and very small in the adult.

201. Stelgidillas gracilirostris.

Stelgidillas gracilirostris (Strickl.); Sharpe, Ibis, 1904, p. 637.

Nos. 1384, 1391. 3 9 ad. River Ja, Feb. 2, 4, 1906.

No. 1907. 3 ad. River Ja, Aug. 11, 1906. Testes large.

202. Ixonotus guttatus.

Ixonotus guttatus J. & E. Verreaux : Sharpe, Ibis, 1904, p. 638.

Nos. 1331, 1338.  $\Im$ ; 1352.  $\Im$  ad. River Ja, Jan. 19-23, 1906. Ovaries of the females small and the testes of the male also small.

203. Pycnonotus gabonensis.

Pycnonotus gabonensis Sharpe ; id. Ibis, 1904, p. 638.

No. 1324. 3 ad. River Ja, Jan. 17, 1906. Testes small.

No. 1478. J ad. River Ja, Feb. 28, 1906. Testes very large.

No. 1733. & juv. River Ja, June 9, 1906. Testes very small.

No. 1911.  $\circ$  ad. River Ja, Aug. 12, 1906. Small ova in ovary.

Nos. 2091, 2100. 9 ad. Bitye, River Ja, Nov. 24, 1906. Ovary small.

[A somewhat more accurate description of this bird's nest may now be added to the few words given before ('Ibis,' 1905, p. 98). The fine fibres used for the upper part and inside of the nest are taken from the dry stems of plants, and are not grass. The inside diameter of the nest at the top is from 60 to 70 mm., the fabric being not quite circular. The eggs are two or three in number, about  $24 \times 17$  mm. in size, of a white ground-colour, which shews only at the small end, the rest being thickly speckled with brown, while some pale bluish speckles are intermixed. This bird is often seen in the Zima Country.—G. L. B.]

204. Pycnonotus viridescentior.

Pycnonotus viridescentior Sharpe, Ibis, 1904, p. 638.

No. 1646. 3 ad. River Ja, April 2, 1906.

Nos. 1285, 1355. 9; 1293. 3 ad. River Ja, Jan. 10-14, 1906. Ovaries and testes rather small.

No. 1454. 2 ad. River Ja, Feb. 23, 1906. Eggs forming.

No. 1646. ♂ ad. River Ja, April 2, 1906. Testes rather large.

[To be continued.]

## XXII.—Field-Notes on the Columba unicincta of Cassin. By DAVID SETH-SMITH, M.B.O.U.

As I believe that very few specimens of the African Pigeon (*Columba unicineta*<sup>\*</sup>) are known in collections, and that little or nothing has been recorded of its habits in the wild state, some notes sent home by my brother, L. M. Seth-Smith, from Uganda may be worth publishing. His letter, dated February 14, 1907, is written from the Budongo Forest, near Masindi. He says :--" You may like to have a few notes about *Columba unicineta*, which I have lately

<sup>\*</sup> For a description of *Columba unicincta*, see Cassin, Pr. Ac. Nat. Sc. Philad. 1859, p. 143, which is reprinted in B.M. Cat. Birds, vol. xxi. p. 243.